

Proposal (35) to conserve the name *Festucion valesiaca*

Jean-Paul Theurillat^{1,2}, Romeo Di Pietro³, Norbert Bauer⁴, Massimo Terzi⁵

¹ Centre Alpien de Phytogéographie, Fondation J.-M. Aubert, Champex-Lac, Switzerland

² Department of Plant Sciences, Section of Biology, University of Geneva, Chambésy, Switzerland

³ Department of Planning, Design and Architecture Technology, Section of Environment and Landscape, Sapienza University of Rome, Roma, Italy

⁴ Hungarian Natural History Museum, Botanical Department, Budapest, Hungary

⁵ Institute of Bioscience and Bioresources, CNR, Bari, Italy

Corresponding author: Jean-Paul Theurillat (jean-paul.theurillat@unige.ch)

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Abstract

For ninety years, the alliance name *Festucion valesiaca* has been widely and almost exclusively used to designate the alliance of steppic, xeric grasslands on deep soils from Central Europe to western Ukraine. However, there is an earlier, hardly used heterotypic synonym, the *Festucion sulcatae*, that would be the correct name according to the rules [recte: *Festucion rupicola* nom. corr.]. In order to preserve a well-established name, we propose to conserve the name *Festucion valesiaca* against the name *Festucion sulcatae*. In addition, we typify the name *Festucion rupicola* Soó 1930 nom. corr. with the association *Festuco rupicola-Stipetum pennatae* Soó 1930 nom. corr., for which we also select a neotype. This proposal is supported by the fact that the alliance *Festucion valesiaca* is the conserved type of the order *Festucetalia valesiaca*.

(35) *Festucion valesiaca* Klika 1931

Typus: *Ranunculo illyrici-Festucetum valesiaca* Klika 1931 (lectotypus designated by Toman 1975: 131)

(=) *Festucion rupicola* Soó 1930 nom. corr. (≡ *Festucion sulcatae* Soó 1930 nom. inept.)

Typus: *Festuco rupicola-Stipetum pennatae* Soó 1930 nom. corr. (lectotypus hoc loco)

Taxonomic reference: Euro+Med (2023) unless otherwise indicated.

Syntaxonomic reference: Mucina et al. (2016).

Abbreviations: EVC = EuroVegChecklist (Mucina et al. 2016); ICPN = 4th edition of the International Code of Phytosociological Nomenclature (Theurillat et al. 2021).

Keywords

Europe, *Festucion rupicola*, *Festucion valesiaca*, *Festucetalia valesiaca*, *Festuco-Brometea*, conserved name, nomenclature, phytosociology

Introduction

The name *Festucion valesiaca* Klika 1931 is widely used to designate, according to EVC, the alliance that contains

the “steppe fescue grasslands on deep calcareous soils of subcontinental Central Europe, Romania, Bulgaria and northwestern Ukraine” (see also Royer 1991; Pott 1992; Mucina et al. 1993, 2016; Oberdorfer 1993; Theurillat et

al. 1995; Passarge 2002; Berg et al. 2004; Chifu et al. 2006; Chytrý 2007; Dúbravková et al. 2010; Borhidi et al. 2012; Dengler et al. 2012; Willner et al. 2013, 2017; Kuzemko et al. 2014; Leuschner and Ellenberg 2017; Solomakha et al. 2017). Klika (1931: 376) published the name “*Festucion valesiaca*” in a study about the xerothermic vegetation of the Pavlov Hills, a region in Southern Moravia (Czech Republic) close to the Austrian border. For many years, the name has been accepted as an eastern, more continental vicariant of the western alliance *Bromion erecti* W. Koch 1926 (Braun-Blanquet 1936; Braun-Blanquet and Moor 1938) within the class *Festuco-Brometea*.

In 1929, Soó published the alliance name *Festucion sulcatae* as a nomen nudum (Soó 1929a: 335). One year later, Soó (1930a: 28–32) published, in a paper on phytosociology in Hungary, the alliance (“asszociáció-csoport” in Hungarian) *Festucion sulcatae* to include the “Pannonic meadows” in the Balaton region. This name was later used by Soó himself (e.g., Soó 1931, 1939, 1940, 1947, 1959, 1964, 1968, 1973) and Hungarian authors (e.g., Zólyomi 1936, 1966; Borhidi 1956, 2003; Timár and Bodrogekőzy 1959; Debreczy 1966), sometimes with the *Festucion valesiaca* (or *Festucion valesiaca* pro parte) as a synonym (e.g., Soó 1934, 1940, 1947, 1959, 1964, 1973) or the opposite (e.g., Borhidi 1995). According to ICPN Art. 44, the name *Festucion sulcatae* is a nomen ineptum [recte: *Festucion rupicola* Soó 1930 nom. corr.] since the correct name at the specific rank of “*Festuca sulcata*”, as used by Soó, is *F. rupicola* Heuff. 1858. [Remark: Since the name-giving taxon is now often used at the subspecific rank, namely *F. stricta* subsp. *sulcata* (Hack.) Pils 1984, as in Euro+Med (2023), using the name *Festucion sulcatae* would be possible with a mutation in accordance with Arts. 32b, 45.] The original diagnosis of the *Festucion sulcatae* Soó 1930 included three associations forming a complex of associations (“*Festuca sulcata*-*Carex humilis*-*Stipa joannis* asszociációkomplex”), namely “*Festuca sulcata*-*Stipa joannis*, *Festuca sulcata*-*Carex humilis* and *Stipa joannis*-*Carex humilis* asszociáció” (Soó 1930a, p. 28), occurring on the south- or east-facing limestone and dolomite substrates of the Hungarian Central Mountains. The original diagnosis of the associations is a synoptic table from the hills of the Balaton region (Tihany, Balatonfüred, Arács, Csopak, Gyenesdiás, Keszthely). The association complex *Festuca sulcata*-*Carex humilis*-*Stipa joannis* and its three associations, especially the *Festuco sulcatae*-*Stipetum joannis* [recte: *Festuco rupicola*-*Stipetum pennatae*], were mentioned several times as nomina nuda for the Balaton region in earlier publications by Soó (e.g., 1928, 1929a, b, c, 1930b). Soó (1934: 687–688) provided further information on the ecology of the association complex and the differential species between the three associations. These associations were usually included in the *Festucion rupicola* by later authors and not united with the rocky, xerophilous communities with *Festuca pallens* aggr. (*Seslerio*-*Festucion glaucae* [*Bromo pannonici*-*Festucion csikhegyensi*], *Asplenio*-*Festucion glaucae*) (e.g., Zólyomi 1936). Then, by analogy with the *Diplachno serotinae*-*Festucetum sulcatae matricum* described by Zólyomi (1958), Soó (1959) united the *Festuco rupicola*-*Stipetum pennatae* nom. corr. and other

associations under the superfluous and illegitimate name *Diplachno serotinae*-*Festucetum sulcatae balatonicum*, which he renamed *Cleistogeno serotinae*-*Festucetum rupicola* (Soó 1964). Recently, Borhidi et al. (2012) and Bauer (2014) included the *Festuco rupicola*-*Stipetum pennatae* Soó 1930 nom. corr. and the *Festuco rupicola*-*Caricetum humilis* Soó 1930 nom. corr. in the *Festuco valesiaca*-*Stipetum capillatae* Sillinger 1930. The original diagnosis of the *Festuco valesiaca*-*Stipetum capillatae* contains only one relevé (Sillinger 1930: 34–38), which is the holotype. According to Janišová et al. (2007), Chytrý (2007) and Borhidi et al. (2012), this association extends from northern and central Bohemia and southern Moravia to western Slovakia and Hungary. For Bauer (2014), the *Festuco sulcatae*-*Stipetum joannis* forms a variant with *Artemisia austriaca* of the *Festuco valesiaca*-*Stipetum capillatae*.

Dengler et al. (2012: 349) argued that, in 1947, Soó described unintentionally a later homonym of the *Festucion sulcatae* Soó 1930 with a different syntaxonomic content, namely for more mesophilous plant communities, therefore rendering the *Festucion sulcatae* a nomen ambiguum (p. 330, 333, 344). This interpretation was followed by Kuzemko et al. (2014) and in the EVC. According to Terzi et al. (2016, 2017), this consideration was due to an inadequate bibliographical interpretation of the references provided in Soó (1947). In fact, the *Festucion sulcatae* Soó 1930 is an earlier, heterotypic synonym of the *Festucion valesiaca* Klika 1931, as stated explicitly in Soó (1940: 30) and acknowledged by Dengler et al. (2012: 349), Dúbravková et al. (2010: 192, sub *Festucion rupicola* Soó 1940 corr. 1964) and in the EVC. Therefore, several authors already suggested to conserve the well-established name *Festucion valesiaca* Klika 1931 against the name *Festucion sulcatae* Soó 1930 (e.g., Kuzemko et al. 2014; Mucina et al. 2016; Terzi et al. 2016; Solomakha et al. 2017).

At the order level, the alliance *Festucion sulcatae* Soó 1930 was designated by Terzi et al. (2016: 311) as the lectotype of the *Festucetalia* published by Soó (1940: 32) and, therefore, is also the type of the superfluous name *Festucetalia valesiaca* Soó (1940) 1947 (Terzi et al. 2016). Due to the heterogeneity of the syntaxonomic content of their original diagnoses, which makes them problematic, especially with respect to the current use of the name *Festucetalia valesiaca* (Willner et al. 2021), both of Soó's order names have been proposed for rejection against the name *Festucetalia valesiaca* Braun-Blanquet et Tüxen ex Braun-Blanquet 1950 (Proposal 21), whose holotype is the alliance *Stipo-Poion xerophilae* Braun-Blanquet et Tüxen ex Braun-Blanquet 1950 (Terzi et al. 2016, 2017; Willner et al. 2021). However, since the lectotype of the name *Stipo-Poion xerophilae* Braun-Blanquet et Tüxen ex Braun-Blanquet 1950, namely the *Astragalo onobrychidis*-*Brometum erecti* Braun-Blanquet 1950 (Terzi et al. 2016: 306), is a more mesic association that does not correspond to the current concept of xeric grasslands pertaining to the *Festucetalia valesiaca*, a modified Proposal 21* was issued (Willner et al. 2021: 307) to conserve the *Festucetalia valesiaca* Braun-Blanquet et Tüxen ex Braun-Blanquet 1950 with the alliance *Festucion valesiaca* Klika 1931 as the conserved type. Following the adoption of Proposal 21* by

the GPN Assembly on 14 April 2023, the alliance *Festucion valesiacae* is now the conserved type of the name *Festucetalia valesiacae*, and maintaining the name *Festucion rupicolae* nom. corr. (*Festucion sulcatae* nom. inept.) as the correct name at the alliance level for priority reasons (ICPN Art. 22) may cause some incongruity. Indeed, one would expect the conserved type of the order *Festucetalia valesiacae* to be at the same time the correct name of an alliance included in that order, and not just a syntaxonomic synonym. Nevertheless, even if our proposal is accepted, the name *Festucion rupicolae* Soó 1930 nom. corr. could still be used if this alliance is considered as a syntaxon distinct from the *Festucion valesiacae* (ICPN Art. 52, Note 3).

Proposal

In accordance with Art. 52, we propose to conserve the name *Festucion valesiacae* Klika 1931 against the heterotypic synonym *Festucion rupicolae* Soó 1930 nom. corr. [\equiv *Festucion sulcatae* Soó 1930 nom. inept.], in line with the conservation of the name *Festucetalia valesiacae* Braun-Blanquet et Tüxen ex Braun-Blanquet 1950 with the conserved type *Festucion valesiacae* Klika 1931 against the names *Festucetalia* Soó 1940 and *Festucetalia valesiacae* Soó 1947.

We select the *Festuco rupicolae-Stipetum pennatae* Soó 1930 nom. corr. [\equiv *Festuca sulcata-Stipa joannis*-asszociáció Soó 1930 nom. inept.] in Soó (1930, pp. 28–31) as the lectotype (lectotypus hoc loco) of the *Festucion rupicolae* Soó 1930 nom. corr. [\equiv *Festucion sulcatae* Soó 1930 nom. inept.].

Since the original diagnosis of the *Festuco rupicolae-Stipetum pennatae* Soó 1930 nom. corr. is a synoptic table, and to our knowledge there are no published relevés by Soó for this name, we also select a neotype for the name. To anchor the *Festuco rupicolae-Stipetum pennatae* in the *Festucion valesiacae*, we select a relevé corresponding to a closed, xeric stand on deep soil of the *Festuco valesiacae-Stipetum capillatae* sensu Bauer (2014) from the Balaton region, where Soó described the association. Figure 1 shows a typical stand of the *Festuco valesiacae-Stipetum capillatae* from this region. The selected neotype is relevé 48 in the Appendix 16.19 in Bauer (2014) (neotypus hoc loco) from the Bakony region, Tihany, Csúcs-hegy (Tihany peninsula, Balaton Uplands); geographical coordinates: 46.90866259580°N, 17.85194271370°E; elevation: 190 m a.s.l.; aspect: west; slope: 20°; substrate: basalt tuff; plot size: 4 m²; total vegetation cover: 81%; date: 17.05.2002; author: Norbert Bauer. Species list (cover in %; + = < 1%): *Festuca rupicola* 15, *Stipa pennata* [= *S. joannis*] 25, *Allium flavum* +, *Alyssum alyssoides* +, *Arenaria serpyllifolia* +, *Artemisia austriaca* +,



Figure 1. A view of a steppe meadow of the *Festucion rupicolae* with a stand of the *Festuco rupicolae-Stipetum pennatae* on the Tamás hill above Balatonfüred in the Balaton region, a place visited by Soó. On the picture you can see *Stipa pennata* (= *S. joannis*), *Verbascum phoeniceum*, *Veronica prostrata*, *Euphorbia cyparissias* and *Campanula sibirica*. Photo: N. Bauer.

Galium glaucum +, *Astragalus onobrychis* 5, *Bromus squarrosus* +, *Centaurea stoebe* aggr. +, *Cerastium pumilum* +, *Clinopodium acinos* +, *Convolvulus cantabrica* 5, *Cotinus coggygria* 1, *Crupina vulgaris* +, *Euphorbia cyparissias* 1, *Helianthemum nummularium* subsp. *obscurum* 1, *Hippocrepis comosa* 1, *Hypericum perforatum* +, *Iris pumila* 3, *Koeleria cristata* 1, *Linaria genistifolia* +, *Medicago minima* 3, *Noccaea perfoliata* +, *Orlaya grandiflora* +, *Potentilla incana* 5, *Rosa canina* aggr. 1, *Prospero autumnale* +, *Stipa capillata* +, *Teucrium chamaedrys* 3, *Thymus odoratissimus* 3, *Valerianella coronata* +.

The relevé belongs to the variant with *Artemisia austriaca* of the *Festuco valesiacae-Stipetum capillatae* (Bauer 2014).

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Author contributions

All authors have contributed to the nomenclature research and the critical revision of the manuscript.

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E-mail and ORCID

Jean-Paul Theurillat (Corresponding author, jean-paul.theurillat@unige.ch), ORCID: <https://orcid.org/0000-0002-1843-5809>

Romeo Di Pietro (romeo.dipietro@uniroma1.it), ORCID: <https://orcid.org/0000-0003-4983-8931>

Norbert Bauer (bauer.norbert@nhmus.hu), ORCID: <https://orcid.org/0000-0001-6037-0773>

Massimo Terzi (massimo.terzi@cnr.it), ORCID: <https://orcid.org/0000-0001-8801-6733>